

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Claims 1-20 Cancelled

21. (New) A device architecture comprising:
a processor arranged to run an operating system (OS) comprising an OS scheduler;
hardware comprising a Dynamic Configurable Hardware Logic (DCHL) layer comprised of a plurality of Logic Elements (LEs); and
interposed between said OS and said DCHL layer, a TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the OS scheduler for scheduling the LEs of the DCHL to execute applications, where the TEMAS operates in response to configuration requests to configure and reconfigure at least some of the plurality of LEs such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.
22. (New) A device architecture as in claim 21, where the TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.
23. (New) A device architecture as in claim 22, where said Tier-2 scheduler is responsive to priorities inherited from the applications when operating in response to the configuration requests.
24. (New) A device architecture as in claim 21, where said plurality of LEs are disposed within at least one context plane.
25. (New) A device architecture as in claim 22, comprising an application layer that comprises at least one application, a service layer that comprises said Tier-1 scheduler and said OS scheduler, a node layer that comprises said at least one Tier-2 scheduler that is coupled to a scheduling algorithm of said Tier-1 scheduler, and a hardware layer that comprises said at least one DCHL configurable device.

26. (New) A device architecture as in claim 21, where said device comprises a device having wireless communications capability.

27. (New) A method comprising:

providing an operating system (OS) comprising an OS scheduler and a Dynamic Configurable Hardware Logic (DCHL) layer comprised of a plurality of Logic Elements (LEs);

interposing between said OS and said DCHL layer a TiEred Multi-media Acceleration Scheduler (TEMAS); and

operating the TEMAS in cooperation with the OS scheduler for scheduling the LEs of the DCHL to execute applications, where operating the TEMAS comprises responding to configuration requests to configure and reconfigure at least some of the plurality of LEs such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.

28. (New) A method as in claim 27, where the TEMAS is comprised of a Tier-1 scheduler for communicating with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.

29. (New) A method as in claim 28, where said Tier-2 scheduler is responsive to priorities inherited from the applications when operating in response to the configuration requests.

30. (New) A method as in claim 27, where said plurality of LEs are disposed within at least one context plane.

31. (New) A method as in claim 28, comprising an application layer that comprises at least one application, a service layer that comprises said Tier-1 scheduler and said OS scheduler, a node layer that comprises said at least one Tier-2 scheduler that is coupled to a scheduling algorithm of said Tier-1 scheduler, and a hardware layer that comprises said at least one DCHL configurable device.

32. (New) A method as in claim 27, executed in a device having wireless communications capability.

33. (New) An apparatus, comprising:

an applications layer comprising a plurality of applications;

a processor arranged to run a service layer comprising an operating system (OS) having an OS scheduler;

hardware comprising a hardware layer comprising Dynamic Configurable Hardware Logic (DCHL) comprised of a plurality of Logic Elements (LEs); and

interposed between said OS and said DCHL in said service layer and in a node layer, a TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the OS scheduler for scheduling the LEs of the DCHL to execute said applications, where operating the TEMAS comprises responding to configuration requests to configure and reconfigure at least some of the plurality of LEs such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.

34. (New) An apparatus as in claim 33, where said TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.

35. (New) An apparatus as in claim 34, where said Tier-2 scheduler is responsive to priorities inherited from the applications when operating in response to the configuration requests.

36. (New) An apparatus as in claim 33, where said plurality of LEs are disposed within at least one context plane.

37. (New) An apparatus as in claim 33, where said apparatus comprises a cellular telephone.

38. (New) An apparatus as in claim 33, where said apparatus comprises a wireless communications device, and where said applications comprise multimedia applications.

39. (New) An apparatus, comprising:

a plurality of logic elements;

a logic element scheduler coupled to said plurality of logic elements; and

an application scheduler coupled to said logic element scheduler and to an operating system scheduler, said application scheduler configured to receive application information from said operating system scheduler and to generate and send application scheduling events to said logic element scheduler in accordance with said received information;

where said logic element scheduler responds to receipt of scheduling events to configure and reconfigure at least some of the plurality of logical elements such that at one time a particular logic element is scheduled for operation with a first algorithm logic, and at another time the same particular logic element is scheduled for operation with a second, different algorithm logic.

40. (New) The apparatus of claim 39, where said application scheduler is further configured to receive feedback of communication overhead from said logic element scheduler for use in adjusting scheduling timing.

41. (New) The apparatus of claim 39, where the application information is comprised of application priority information and said logic element scheduler is further configured use the application priority information when scheduling the application logics onto the logic elements.

42. (New) The apparatus of claim 39, embodied in a device having wireless communications capability.